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EXAMINER	
WALSH, DANIEL I	
ART UNIT	PAPER NUMBER
2887	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/693,271	MANN ET AL.	
	Examiner	Art Unit	
	DANIEL WALSH	2887	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *10 May 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-10,16,17,19,21-30,38 and 47-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-10,16,17,19,21-30,38 and 47-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 4-10, 16, 17, 19, 21-30, 38, and 47-50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to provide support for the recited areal density that is compliant with ANSI/ISO/IEC standards. The specification mentions standards applied to magnetic striped cards, but is silent to such standards as applied to the portable card of the present invention and is further silent to standards and a specific numerical value relating to areal density.

For purposes of Examination, the Examiner will interpret this to mean that the magnetic domains are arranged in an areal density that is arranged in a track/arc, wherein the "arrangement" of magnetic domains (in an areal density) is compliant with hard disk drive standards (as they are arranged in a track/arc). The Examiner has also provided an alternative rejection for the interpretation that the areal density (numerical value) is compliant with standards.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4-10, 16, 17, 19, 21-30, 38, 47-50 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "... for storing magnetic signals in a manner compliant with ANSI/ISO/IEC hard disk drive standards…" This phrase is vague/indefinite, since it is unclear what specific aspect of the standard is being referred to and what specific standard (what number and/or year) is being applied.. For purposes of Examination, the Examiner will interpret the limitation to mean for storing magnetic signals in a manner comprising data tracks, which is interpreted as a manner compliant with the hard disk drive standards. The claims do not specifically recite what specific standard or aspect is being referred to and does not recite specific details about the desired limitation of the standard.

Further claim 1 and 10 after amendment appear to be directed towards different elements being compliant with a hard disk drive standard (storing of data and disposing of magnetic material). It is unclear if this was on purpose of was an error on the Applicants part.

Appropriate clarification/correction is requested. The Examiner also makes note that the Applicant should take care to not raise any potential 112 1st or 2nd paragraph issues when addressing the above issue.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 4-10, 16-17, 19, 21-25, 27-28, 30, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 2001/0052543) in view of Wood (US 5,041,922).

Re claim 1, Liu teaches a portable card adapted to be used in a card processing system having a data processing station comprising a data storage device adapted to interact with the data processing station when the portable processing station and card are moved relative to each other, a substrate having a generally rectangular shape, and magnetic material for storing signals such as disposed on an arcuate shaped track (FIG. 2d+). Though silent to high density/high coercivity material, it would have been obvious to one of ordinary skill in the art to use such a material, for its known benefits for increased data storage. Re the protective housing having at

least one housing section that is movable relative to the data storage device such that the data storage device is shielded by said at least one housing section when said at least one housing section is in a first position, and said data storage device is operably exposed for interaction with the data processing station when said at least one housing is in a second position, the Examiner notes that Liu teaches a protective housing (FIG. 3A-3B) that shields the data storage device in a first position and that exposes the device in a second position (when the card is removed). Though silent to the protective housing being movable, the Examiner notes that as it is a rack, it would have been obvious for the rack to be able to be moved, as it is merely a rack that holds several cards. Further, it appears to be consistent with that embodiment taught in applicants response (re Applicants FIG. 65) where the card/housing is movable relative to the card/housing.

Re the newly recited limitations that the magnetic material has a plurality of magnetic domains arranged in an areal density compliant with the hard disk drive standards, the Examiner notes that the magnetic medium of Liu has tracks/arranged arcs which are interpreted as being arranged compliant with hard drive standards, as hard drives also have arc/round tracks. Re the limitation of magnetic domains, the Examiner notes that the prior art teaches magnetic storage material as discussed above, and magnetic domains are believed inherent within magnetic material. Therefore, the Examiner notes that as Liu teaches a magnetic storage medium storing data in tracks/arcs, such a medium is believed to inherently include, as a function of it being a magnetic material, magnetic domains arranged thereon, with an areal density. Therefore, the storage medium of Liu, with the arc/round tracks which therefore have having magnetic domains with an areal density, reads on the arrangement as recited of magnetic domains of the data storage device with the areal density that are arranged compliant with the hard disk drive

standards as the teachings of Liu include arranged in arch shaped tracks, wherein such tracks are compliant with hard disk drive standards, as hard disk drives have arcs/tracks for storage. Since hard drives compliant with standards are arranged with data tracks/arcs, magnetic domains, and areal densities, the prior art of Liu is therefore seen as being arranged in accordance with such compliance with the recited standards, as Liu teaches storage with the same properties (areal densities and domains as a inherent property) and data tracks (round/arced) and accordingly, these are believed to be formed in a compliant manner with hard drive standards since hard drive standards are also formed with arcs and areal densities and domains. The claims do not recite a specific type/year of standard or what the standard is drawn to. Simply put, the domains are on the tracks of the prior art magnetic storage medium, the area densities on the tracks, and since the tracks have areal density formed thereon, this is in compliance with hard disk drive standards that have areal densities on the domains of their tracks. The claims do not recite the value of the areal density is compliant with standards, only that there is an areal density the domains are arranged in. Hence areal densities are compliant with hard disk drive standards since hard disk drives have areal densities.

Liu is silent to the protective coating as claimed in addition to not specifically reciting the high density/high coercivity layer.

Wood teaches magnetic storage for a disc/tape/etc. (interpreted as suitable for a card) and the protective coating and the claimed high density high coercivity material and the protective coating having a magnetically permeable magnetically saturable material (abstract), where the Examiner has interested both layers as forming the protective layer (13,14 form a protective layer). Though silent to being hard and abradable, a protective coating would

obviously meet such limitations as an obvious expedient in order to further protect the card, and that coatings are interpreted to have a degree of abradability as a material limitation. The Examiner notes that the language regarding the selection of the thickness of the layer is not germane to the patentability of the device itself, and the prior art is interpreted to meet the structural limitations. Regardless, it would have been obvious to one of ordinary skill in the art to have a thickness that is not too thick to prevent signals but not too thing to be worn off, in order for the card and processing station to function, such selection of a range, where the general conditions of a claim are disclosed by the prior art, involves only routine skill in the art.

Wood teaches high coercivity (col 1, lines 30+) and high density (col 1, lines 39+ and col 2, lines 45+ which teach that magnetic storage materials have high density and coercivity), noting that such data storage is interpreted to include high density for increased storage capacity. Further, the claim does not recite a specific range of density, and therefore, it would have been obvious to have high density data storage for increased storage abilities.

Re claims 4-9, the Examiner notes that such limitations regarding the orientation and number of tracks is believed to be taught by Liu, where the tracks are interpreted to extend between the sides, are enclosed by the card and hence extend or are located centrally as claimed, and also Liu teaches the shape of the card, which is conventional in the art.

Re claims 10 and 16-17, the limitations have been discussed above. Re the newly added limitations to claim 10, they have been addressed above re claim 1.

Re claim 19, though the film 13 of Wood et al. is silent to being thin, the Examiner notes that it is taught as being plated or sputtered. Therefore, it would have been obvious for such

methods to produce a thing film. One would have been motivated to have a thin film, for reduction in size/cost and the use of common manufacturing techniques.

Re claim 21, though silent to a non-magnetic friction reducing layer on one of the layers, the Examiner notes that cards are finished to have a smooth/non magnetic friction reducing layer to effect ease of use of the card, looks, and transporting it through a reader, and therefore such modification is an obvious expedient for such expected results. Such a layer can be interpreted as part of a protection layer as it imparts some protection inherently to the card.

Re claim 22, the Examiner notes that cards are interpreted as cleanable.

Re claim 23, a substrate is understood to have two surfaces, and as such, the protecting coating is therefore applied to one of them (directly or indirectly).

Re claims 24-25, though silent to a recording medium on both sides (which would necessitate the protection layer on both sides and hence meet the limitations), the Examiner notes those cards with magnetic storage on both sides are well known and conventional in the art. One would have been motivated to have such a card for increased data storage, to make orientation easier when reading, and to possibly store more than one account on a card.

Re claims 27-28 and 30, Wood teaches such limitations (claim 16 and FIG. 1), and it is conventional in the art for relative movement to enable data flow, such as conventional readers/cards employ.

Re claim 47-48, Wood teaches sputtering, as discussed above, as a means to easily form a thin layer. Though silent to plating, the Examiner notes plating is also a well known means to form a layer, and hence an obvious expedient to one of ordinary skill in the art to form a magnetic thin layer.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu with those of Wood.

One would have been motivated to do this to provide coatings, enable data flow, employ conventional processing techniques, etc. to provide expected results of a durable, easy to use, reliable card.

Though silent to the recited "for storing magnetic signals in a manner compliant with ANSI/ISO/IEC hard disk drive standards" as discussed above, and in the 112 rejection, the data storage device is interpreted as having a magnetic material layer disposed including tracks on said substrate, which is interpreted as storing in a manner compliant with the standards, since track magnetic storage is interpreted as a manner compliant with the standards, wherein the magnetic material has an inherent areal density and domains arranged on tracks and therefore complies with the recited standards, since hard disk drives have track based magnetic storage with domains and densities as well..

Re claim 10, though silent to disposing of magnetic material in a manner compliant with ANSI/ISO/IEC standards, the Examiner has interpreted that the tracks of the prior art are interpreted as being disposed in a manner compliant with the standards, since magnetic track data storage is broadly interpreted as compliant with the standards including areal density and magnetic domains as recited above, wherein the formation of the tracks with such properties is in compliance with hard disk drive standards since they also include such elements/traits.

Further, re the 'hard disk drive standards', the Examiner notes that such limitations are very broad, especially as the Applicants specification does not include such terminology

specifically in the specification, with specific regard to specific details of the actual "manner" that would overcome the prior art.

4. Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood, as discussed above, in view of Hirasawa (US 6,250552).

The teachings of Liu/Wood have been discussed above.

Liu/Wood are silent to the coating on both surfaces.

Hirasawa teaches magnetic cards can have magnetic storage on both sides (col 1, lines 30+). Accordingly, it would have been obvious to have the coating on both surfaces when both surfaces have a recording medium.

At the time the invention was made it would have been obvious to combine the teachings of Liu/Wood wit those of Hirasawa.

One would have been motivated to do this to have a card that does not require such precise orientation (can be inserted either way into a reader since a magnetic storage is on both sides) or one that can have increased data storage, as some cards with dual storage can be linked to separate accounts.

Though Hirasawa teaches stripes, it is believed to be applicable to other track orientations, including rings/arcuate surfaces as the same principles are believed to apply.

5. Claim 26 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood, as discussed above, in view of Bajorek (US 6,482,330).

The teachings of Liu/Wood have been discussed above.

Liu/Wood are silent to a bonded lubricant layer formed on the outer surface having a thickness less than the protective coating.

Film layers are known in the art for increasing density and providing relief from size (excess). Bajorek teaches a lubricant provided to the protective overcoat (col 4, lines 52+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Bajorek.

One would have been motivated to do this for data density, relief, and ease of use/durability.

Though silent to the thickness, the Examiner notes it would have been obvious to be thinner than the protective layer as the lubricant is employed for reduced friction surface and as being able to be applied by wiping onto the protective layer it would obviously be thinner than a multipart protective layer with magnetic properties. The selection of an optimum value/range when general teaches are taught by the prior art, is within the ordinary skill in the art. Such a layer can be interpreted as a protective component.

Re claim 49, Liu/Wood are silent to oxide layers.

Bajorek teaches such limitations (col 1, lines 15+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Bajorek for data storing ease.

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood, as discussed above, in view of Mizoguchi et al. (US 5,689,105).

The teachings of Liu/Wood have been discussed above.

Liu/Wood are silent to the station moving relative to the substrate/card.

Mizoguchi et al. teaches such limitations (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Mizoguchi et al.

One would have been motivated to do this to have an alternative means to read the card, and to accurately process with the card (with conformity).

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood, as discussed above, in view of Nishiyama et al. (US 5,721,942)

The teachings of Liu/Wood have been discussed above.

Liu/Wood are silent to the claimed density range.

Nishiyama et al. teaches such a range (claim 4)

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Nishiyama et al. in order for increased storage capacity.

8. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood, as discussed above, in view of Meeks (US 6,268,919).

The teachings of Liu/Wood have been discussed above.

Liu/Wood are silent to the plating.

Meeks teaches such limitations (col 1, lines 43-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Meeks since plating is well known and conventional for disks/drives to lead to desired properties for magnetic surfaces.

9. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood, as discussed above, in view of Foley (US 4,518,627).

The teachings of Liu/Wood have been discussed above.

Liu/Wood are silent to the web coating.

Foley teaches such limitations (col 3, lines 15-35 and abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Foley.

One would have been motivated to do this to produce a durable magnetic medium, as is commonly done in the art.

10. Alternatively, claims 1, 4-10, 16-17, 19, 21-25, 27-28, 30, 38, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 2001/0052543) in view of Wood (US 5,041,922) and Nishiyama et al. (US 5721942).

Re claim 1, Liu teaches a portable card adapted to be used in a card processing system having a data processing station comprising a data storage device adapted to interact with the data processing station when the portable processing station and card are moved relative to each other, a substrate having a generally rectangular shape, and magnetic material for storing signals such as disposed on an arcuate shaped track (FIG. 2d+). Though silent to high density/high coercivity material, it would have been obvious to one of ordinary skill in the art to use such a material, for its known benefits for increased data storage. Re the protective housing having at least one housing section that is movable relative to the data storage device such that the data storage device is shielded by said at least one housing section when said at least one housing section is in a first position, and said data storage device is operably exposed for interaction with the data processing station when said at least one housing is in a second position, the Examiner notes that Liu teaches a protective housing (FIG. 3A-3B) that shields the data storage device in a

first position and that exposes the device in a second position (when the card is removed). Though silent to the protective housing being movable, the Examiner notes that as it is a rack, it would have been obvious for the rack to be able to be moved, as it is merely a rack that holds several cards. Further, it appears to be consistent with that embodiment taught in applicants response (re Applicants FIG. 65) where the card/housing is movable relative to the card/housing.

Re the newly recited limitations that the magnetic material has a plurality of magnetic domains arranged in an areal density compliant with the hard disk drive standards, the Examiner notes that the magnetic medium of Liu has tracks/arranged arcs which are interpreted as being arranged compliant with hard drive standards, as hard drives also have arc/round tracks. Re the limitation of magnetic domains, the Examiner notes that the prior art teaches magnetic storage material as discussed above, and magnetic domains are believed inherent within magnetic material. Therefore, the Examiner notes that as Liu teaches a magnetic storage medium storing data in tracks/arcs, such a medium is believed to inherently include, as a function of it being a magnetic material, magnetic domains arranged thereon, with an areal density. Therefore, the storage medium of Liu, with the arc/round tracks which therefore have having magnetic domains with an areal density, reads on the arrangement as recited of magnetic domains of the data storage device with the areal density are arranged compliant with the hard disk drive standards as the teachings of Liu include arranged in arch shaped tracks, wherein such tracks are compliant with hard disk drive standards, as hard disk drives have arcs/tracks for storage. Since hard drives compliant with standards are arranged with data tracks/arcs, magnetic domains, and areal densities, the prior art of Liu is therefore seen as being arranged in accordance with such compliance with the recited standards, as Liu teaches storage with the same properties (areal

densities and domains as a inherent property) and data tracks (round/arced) and accordingly, these are believed to be formed in a compliant manner with hard drive standards since hard drive standards are also formed with arcs and areal densities and domains. The claims do not recite a specific type/year of standard or what the standard is drawn to.

Liu is silent to the protective coating as claimed in addition to not specifically reciting the high density/high coercivity layer.

Wood teaches magnetic storage for a disc/tape/etc. (interpreted as suitable for a card) and the protective coating and the claimed high density high coercivity material and the protective coating having a magnetically permeable magnetically saturable material (abstract), where the Examiner has interested both layers as forming the protective layer (13,14 form a protective layer). Though silent to being hard and abradable, a protective coating would obviously meet such limitations as an obvious expedient in order to further protect the card, and that coatings are interpreted to have a degree of abradability as a material limitation. The Examiner notes that the language regarding the selection of the thickness of the layer is not germane to the patentability of the device itself, and the prior art is interpreted to meet the structural limitations. Regardless, it would have been obvious to one of ordinary skill in the art to have a thickness that is not too thick to prevent signals but not too thing to be worn off, in order for the card and processing station to function, such selection of a range, where the general conditions of a claim are disclosed by the prior art, involves only routine skill in the art.

Wood teaches high coercivity (col 1, lines 30+) and high density (col 1, lines 39+ and col 2, lines 45+ which teach that magnetic storage materials have high density and coercivity), noting that such data storage is interpreted to include high density for increased storage capacity.

Further, the claim does not recite a specific range of density, and therefore, it would have been obvious to have high density data storage for increased storage abilities.

Though Liu/Wood are believed to teach arrangement in compliance with standards, they are silent to the areal density having a numeric value compliant with standards.

Re claims 1, 10, and 38, Nishiyama et al. teaches such a range of areal density (claim 4) compliant with the hard drive standards.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Nishiyama et al. in order for increased storage capacity.

Re claims 4-9, the Examiner notes that such limitations regarding the orientation and number of tracks is believed to be taught by Liu, where the tracks are interpreted to extend between the sides, are enclosed by the card and hence extend or are located centrally as claimed, and also Liu teaches the shape of the card, which is conventional in the art.

Re claims 10 and 16-17, the limitations have been discussed above. Re the newly added limitations to claim 10, they have been addressed above re claim 1.

Re claim 19, though the film 13 of Wood et al. is silent to being thin, the Examiner notes that it is taught as being plated or sputtered. Therefore, it would have been obvious for such methods to produce a thing film. One would have been motivated to have a thin film, for reduction in size/cost and the use of common manufacturing techniques.

Re claim 21, though silent to a non-magnetic friction reducing layer on one of the layers, the Examiner notes that cards are finished to have a smooth/non magnetic friction reducing layer to effect ease of use of the card, looks, and transporting it through a reader, and therefore such

modification is an obvious expedient for such expected results. Such a layer can be interpreted as part of a protection layer as it imparts some protection inherently to the card.

Re claim 22, the Examiner notes that cards are interpreted as cleanable.

Re claim 23, a substrate is understood to have two surfaces, and as such, the protecting coating is therefore applied to one of them (directly or indirectly).

Re claims 24-25, though silent to a recording medium on both sides (which would necessitate the protection layer on both sides and hence meet the limitations), the Examiner notes those cards with magnetic storage on both sides are well known and conventional in the art. One would have been motivated to have such a card for increased data storage, to make orientation easier when reading, and to possibly store more than one account on a card.

Re claims 27-28 and 30, Wood teaches such limitations (claim 16 and FIG. 1), and it is conventional in the art for relative movement to enable data flow, such as conventional readers/cards employ.

Re claim 47-48, Wood teaches sputtering, as discussed above, as a means to easily form a thin layer. Though silent to plating, the Examiner notes plating is also a well known means to form a layer, and hence an obvious expedient to one of ordinary skill in the art to form a magnetic thin layer.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu with those of Wood.

One would have been motivated to do this to provide coatings, enable data flow, employ conventional processing techniques, etc. to provide expected results of a durable, easy to use, reliable card.

Though silent to the recited "for storing magnetic signals in a manner compliant with ANSI/ISO/IEC hard disk drive standards" as discussed above, and in the 112 rejection, the data storage device is interpreted as having a magnetic material layer disposed including tracks on said substrate, which is interpreted as storing in a manner compliant with the standards, since track magnetic storage is interpreted as a manner compliant with the standards, wherein the magnetic material has an inherent areal density and domains arranged on tracks and therefore complies with the recited standards, since hard disk drives have track based magnetic storage with domains and densities as well. The areal density being compliant (numerically) has been discussed above re claim 1.

Re claim 10, though silent to disposing of magnetic material in a manner compliant with ANSI/ISO/IEC standards, the Examiner has interpreted that the tracks of the prior art are interpreted as being disposed in a manner compliant with the standards, since magnetic track data storage is broadly interpreted as compliant with the standards including areal density and magnetic domains as recited above, wherein the formation of the tracks with such properties is in compliance with hard disk drive standards since they also include such elements/traits.

Further, re the 'hard disk drive standards', the Examiner notes that such limitations are very broad, especially as the Applicants specification does not include such terminology specifically in the specification, with specific regard to specific details of the actual "manner" that would overcome the prior art.

11. Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Nishiyama et al., as discussed above, in view of Hirasawa (US 6,250552).

The teachings of Liu/Wood/Nishiyama et al. have been discussed above.

Liu/Wood/Nishiyama et al. are silent to the coating on both surfaces.

Hirasawa teaches magnetic cards can have magnetic storage on both sides (col 1, lines 30+). Accordingly, it would have been obvious to have the coating on both surfaces when both surfaces have a recording medium.

At the time the invention was made it would have been obvious to combine the teachings of Liu/Wood/Nishiyama with those of Hirasawa.

One would have been motivated to do this to have a card that does not require such precise orientation (can be inserted either way into a reader since a magnetic storage is on both sides) or one that can have increased data storage, as some cards with dual storage can be linked to separate accounts.

Though Hirasawa teaches stripes, it is believed to be applicable to other track orientations, including rings/arcuate surfaces as the same principles are believed to apply.

12. Claim 26 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Nishiyama et al., as discussed above, in view of Bajorek (US 6,482,330).

The teachings of Liu/Wood have been discussed above.

Liu/Wood/Nishiyama et al. are silent to a bonded lubricant layer formed on the outer surface having a thickness less than the protective coating.

Film layers are known in the art for increasing density and providing relief from size (excess). Bajorek teaches a lubricant provided to the protective overcoat (col 4, lines 52+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Nishiyama et al. with those of Bajorek.

One would have been motivated to do this for data density, relief, and ease of use/durability.

Though silent to the thickness, the Examiner notes it would have been obvious to be thinner than the protective layer as the lubricant is employed for reduced friction surface and as being able to be applied by wiping onto the protective layer it would obviously be thinner than a multipart protective layer with magnetic properties. The selection of an optimum value/range when general teaches are taught by the prior art, is within the ordinary skill in the art. Such a layer can be interpreted as a protective component.

Re claim 49, Liu/Wood/Nishiyama et al. are silent to oxide layers.

Bajorek teaches such limitations (col 1, lines 15+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Nishiyama et al. with those of Bajorek for data storing ease.

13. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Nishiyama et al., as discussed above, in view of Mizoguchi et al. (US 5,689,105).

The teachings of Liu/Wood/Nishiyama et al. have been discussed above.

Liu/Wood/Nishiyama et al. are silent to the station moving relative to the substrate/card.

Mizoguchi et al. teaches such limitations (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Nishiyama et al. with those of Mizoguchi et al.

One would have been motivated to do this to have an alternative means to read the card, and to accurately process with the card (with conformity).

14. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Nishiyama, as discussed above, in view of Meeks (US 6,268,919).

The teachings of Liu/Wood/Nishiyama et al. have been discussed above.

Liu/Wood/Nishiyama et al. are silent to the plating.

Meeks teaches such limitations (col 1, lines 43-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Nishiyama et al. with those of Meeks since plating is well known and conventional for disks/drives to lead to desired properties for magnetic surfaces.

15. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Nishiyama et al., as discussed above, in view of Foley (US 4,518,627).

The teachings of Liu/Wood have been discussed above.

Liu/Wood/Nishiyama et al. are silent to the web coating.

Foley teaches such limitations (col 3, lines 15-35 and abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Nishiyama et al. with those of Foley.

One would have been motivated to do this to produce a durable magnetic medium, as is commonly done in the art.

16. Claims 1, 4-10, 16-17, 19, 21-25, 27-28, 30, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 2001/0052543) in view of Wood (US 5,041,922) and Levy (US 4884507)

Re claim 1, Liu teaches a portable card adapted to be used in a card processing system having a data processing station comprising a data storage device adapted to interact with the data processing station when the portable processing station and card are moved relative to each other, a substrate having a generally rectangular shape, and magnetic material for storing signals disposed such as on an arcuate shaped track (FIG. 2d+). Though silent to high density/high coercivity material, it would have been obvious to one of ordinary skill in the art to use such a material, for its known benefits for increased data storage.

Re the newly added limitations of claim 1, these have been address above, in the first rejection of claim 1 in the office action.

Liu is silent to the protective coating as claimed and explicitly reciting the coercivity limitations.

Wood teaches magnetic storage for a disc/tape/etc. (interpreted as suitable for a card) and the protective coating having the claimed high density high coercivity material and the protective coating having a magnetically permeable magnetically saturable material (abstract), where the Examiner has interested both layers as forming the protective layer (13,14 form a protective layer). Though silent to being hard and abradable, a protective coating would obviously meet such limitations in order to further protect the card. The Examiner notes that the language regarding the selection of the thickness of the layer is not germane to the patentability of the device itself, and the prior art is interpreted to meet the structural limitations. Regardless, it would have been obvious to one of ordinary skill in the art to have a thickness that is not too thick to prevent signals but not too thing to be worn off, in order for the card and processing station to function, such selection of a range, where the general conditions of a claim are

disclosed by the prior art, involves only routine skill in the art. As discussed above, Wood teaches high coercivity (col 1, lines 30+) and high density (col 1, lines 39+ and col 2, lines 45+), noting that such "hard" magnetic materials, such as those with a high coercivity and high saturation density are those that store information. Thus high density is an obvious expedient for such increased data storage and is consistent with high coercivity and high saturation (flux) density. The Examiner notes that the use of high coercivity and high saturation are well known and conventional in the art for use with high density data storage, recording, and are an obvious expedient to produce such expected results.

. The Examiner also notes that the prior art is interpreted to include high density storage, which is known in the art for data storing capacity. Further, the claim does not recite a specific range of density, and therefore, the magnetic storage is interpreted as high density.

Re claims 4-9, the Examiner notes that such limitations regarding the orientation and number of tracks is believed to be taught by Liu, where the tracks are interpreted to extend between the sides, are enclosed by the card and hence extend or are located centrally as claimed, and also Liu teaches the shape of the card, which is conventional in the art.

Re claims 10 and 16-17, the limitations have been discussed above.

Re claim 19, though the film 13 of Wood et al. is silent to being thin, the Examiner notes that it is taught as being plated or sputtered. Therefore, it would have been obvious for such methods to produce a thing film. One would have been motivated to have a thin film, for reduction in size/cost and the use of common manufacturing techniques.

Re claim 21, though silent to a non-magnetic friction reducing layer on one of the layers, the Examiner notes that cards are finished to have a smooth/non magnetic friction reducing layer

to effect ease of use of the card, looks, and transporting it through a reader, and therefore such modification is an obvious expedient for such expected results. Such a layer can be interpreted as part of a protection layer as it imparts some protection inherently to the card.

Re claim 22, the Examiner notes that cards are interpreted as cleanable.

Re claim 23, a substrate is understood to have two surfaces, and as such, the protecting coating is therefore applied to one of them (directly or indirectly).

Re claims 24-25, though silent to a recording medium on both sides (which would necessitate the protection layer on both sides and hence meet the limitations), the Examiner notes those cards with magnetic storage on both sides are well known and conventional in the art. One would have been motivated to have such a card for increased data storage, to make orientation easier when reading, and to possibly store more than one account on a card.

Re claims 27-28 and 30, Wood teaches such limitations (claim 16 and FIG. 1), and it is conventional in the art for relative movement to enable data flow, such as conventional readers/cards employ.

Re claim 47-48, Wood teaches sputtering, as discussed above, as a means to easily form a thin layer. Though silent to plating, the Examiner notes plating is also a well known means to form a layer, and hence an obvious expedient to one of ordinary skill in the art to form a magnetic thin layer.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu with those of Wood.

One would have been motivated to do this to provide coatings, enable data flow, employ conventional processing techniques, etc. to provide expected results of a durable, easy to use, reliable card.

Re claim 10, though silent to the disposing in a manner compliant with ANSI/ISO/IEC standards, this has been addressed above re the rejection of claim 1.

Liu/Wood are silent to the explicitly reciting the newly added limitations of the protective housing.

Levy teaches such limitations (FIG. 1) via a case that is able to store cards and that opens and closes thereby providing the claimed access.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Levy, for additional protection.

Re claims 1 and 10, and the newly added limitations regarding the standards the Examiner notes that these limitations have been addressed in the action above, wherein the arcuate/tracks being read by a reader/head, are interpreted as being read in a manner/formed in a manner, compliant with the standards since the tracks have an areal density and magnetic domains since it's a magnetic material and as such is formed/arranged in a way compliant with hard disk drive standards since hard disk drive standards have such elements/traits.

17. Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Levy, as discussed above, in view of Hirasawa (US 6,250552).

The teachings of Liu/Wood/Levy have been discussed above.

Liu/Wood/Levy are silent to the coating on both surfaces.

Hirasawa teaches magnetic cards can have magnetic storage on both sides (col 1, lines 30+). Accordingly, it would have been obvious to have the coating on both surfaces when both surfaces have a recording medium.

At the time the invention was made it would have been obvious to combine the teachings of Liu/Wood/Levy with those of Hirasawa.

One would have been motivated to do this to have a card that does not require such precise orientation (can be inserted either way into a reader since a magnetic storage is on both sides) or one that can have increased data storage, as some cards with dual storage can be linked to separate accounts.

Though Hirasawa teaches stripes, it is believed to be applicable to other track orientations, including rings/arcuate surfaces as the same principles are believed to apply.

18. Claim 26 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Levy, as discussed above, in view of Bajorek (US 6,482,330).

The teachings of Liu/Wood/Levy have been discussed above.

Liu/Wood/Levy are silent to a bonded lubricant layer formed on the outer surface having a thickness less than the protective coating.

Film layers are known in the art for increasing density and providing relief from size (excess). Bajorek teaches a lubricant provided to the protective overcoat (col 4, lines 52+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Levy with those of Bajorek.

One would have been motivated to do this for data density, relief, and ease of use/durability.

Though silent to the thickness, the Examiner notes it would have been obvious to be thinner than the protective layer as the lubricant is employed for reduced friction surface and as being able to be applied by wiping onto the protective layer it would obviously be thinner than a multipart protective layer with magnetic properties. The selection of an optimum value/range when general teaches are taught by the prior art, is within the ordinary skill in the art. Such a layer can be interpreted as a protective component.

Re claim 49, Liu/Wood/Levy are silent to oxide layers.

Bajorek teaches such limitations (col 1, lines 15+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Levy with those of Bajorek for data storing ease.

19. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Levy, as discussed above, in view of Mizoguchi et al. (US 5,689,105).

The teachings of Liu/Wood/Levy have been discussed above.

Liu/Wood/Levy are silent to the station moving relative to the substrate/card.

Mizoguchi et al. teaches such limitations (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Levy with those of Mizoguchi et al.

One would have been motivated to do this to have an alternative means to read the card, and to accurately process with the card (with conformity).

20. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Levy, as discussed above, in view of Nishiyama et al. (US 5,721,942)

The teachings of Liu/Wood/Levy have been discussed above.

Liu/Wood/Levy are silent to the claimed density range.

Nishiyama et al. teaches such a range (claim 4)

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Levy with those of Nishiyama et al. in order for increased storage capacity.

21. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Levy, as discussed above, in view of Meeks (US 6,268,919).

The teachings of Liu/Wood/Levy have been discussed above.

Liu/Wood/Levy are silent to the plating.

Meeks teaches such limitations (col 1, lines 43-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Levy with those of Meeks since plating is well known and conventional for disks/drives to lead to desired properties for magnetic surfaces.

22. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Levy, as discussed above, in view of Foley (US 4,518,627).

The teachings of Liu/Wood/Levy have been discussed above.

Liu/Wood/Levy are silent to the web coating.

Foley teaches such limitations (col 3, lines 15-35 and abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Levy with those of Foley.

One would have been motivated to do this to produce a durable magnetic medium, as is commonly done in the art.

23. Alternatively, claims 1, 4-10, 16-17, 19, 21-25, 27-28, 30, 38, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 2001/0052543) in view of Wood (US 5,041,922), Nishiyama et al., and Levy (US 4884507).

Re claim 1, Liu teaches a portable card adapted to be used in a card processing system having a data processing station comprising a data storage device adapted to interact with the data processing station when the portable processing station and card are moved relative to each other, a substrate having a generally rectangular shape, and magnetic material for storing signals disposed such as on an arcuate shaped track (FIG. 2d+). Though silent to high density/high coercivity material, it would have been obvious to one of ordinary skill in the art to use such a material, for its known benefits for increased data storage.

Re the newly added limitations of claim 1, these have been address above, in the first rejection of claim 1 in the office action.

Liu is silent to the protective coating as claimed and explicitly reciting the coercivity limitations.

Wood teaches magnetic storage for a disc/tape/etc. (interpreted as suitable for a card) and the protective coating having the claimed high density high coercivity material and the protective coating having a magnetically permeable magnetically saturable material (abstract), where the Examiner has interested both layers as forming the protective layer (13,14 form a protective layer). Though silent to being hard and abradable, a protective coating would obviously meet such limitations in order to further protect the card. The Examiner notes that the

language regarding the selection of the thickness of the layer is not germane to the patentability of the device itself, and the prior art is interpreted to meet the structural limitations. Regardless, it would have been obvious to one of ordinary skill in the art to have a thickness that is not too thick to prevent signals but not too thing to be worn off, in order for the card and processing station to function, such selection of a range, where the general conditions of a claim are disclosed by the prior art, involves only routine skill in the art. As discussed above, Wood teaches high coercivity (col 1, lines 30+) and high density (col 1, lines 39+ and col 2, lines 45+), noting that such "hard" magnetic materials, such as those with a high coercivity and high saturation density are those that store information. Thus high density is an obvious expedient for such increased data storage and is consistent with high coercivity and high saturation (flux) density. The Examiner notes that the use of high coercivity and high saturation are well known and conventional in the art for use with high density data storage, recording, and are an obvious expedient to produce such expected results.

. The Examiner also notes that the prior art is interpreted to include high density storage, which is known in the art for data storing capacity. Further, the claim does not recite a specific range of density, and therefore, the magnetic storage is interpreted as high density.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu with those of Wood for protection/security.

Though the prior art of Liu/Wood teaches a compliant arrangement, it is silent to the areal density having a numerical value as claimed, compliant with the standards.

Re claims 1, 10, and 38, Nishiyama et al. teaches such limitations as discussed above.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Nishiyama et al. for increased storage.

Re claims 4-9, the Examiner notes that such limitations regarding the orientation and number of tracks is believed to be taught by Liu, where the tracks are interpreted to extend between the sides, are enclosed by the card and hence extend or are located centrally as claimed, and also Liu teaches the shape of the card, which is conventional in the art.

Re claims 10 and 16-17, the limitations have been discussed above.

Re claim 19, though the film 13 of Wood et al. is silent to being thin, the Examiner notes that it is taught as being plated or sputtered. Therefore, it would have been obvious for such methods to produce a thing film. One would have been motivated to have a thin film, for reduction in size/cost and the use of common manufacturing techniques.

Re claim 21, though silent to a non-magnetic friction reducing layer on one of the layers, the Examiner notes that cards are finished to have a smooth/non magnetic friction reducing layer to effect ease of use of the card, looks, and transporting it through a reader, and therefore such modification is an obvious expedient for such expected results. Such a layer can be interpreted as part of a protection layer as it imparts some protection inherently to the card.

Re claim 22, the Examiner notes that cards are interpreted as cleanable.

Re claim 23, a substrate is understood to have two surfaces, and as such, the protecting coating is therefore applied to one of them (directly or indirectly).

Re claims 24-25, though silent to a recording medium on both sides (which would necessitate the protection layer on both sides and hence meet the limitations), the Examiner notes

those cards with magnetic storage on both sides are well known and conventional in the art. One would have been motivated to have such a card for increased data storage, to make orientation easier when reading, and to possibly store more than one account on a card.

Re claims 27-28 and 30, Wood teaches such limitations (claim 16 and FIG. 1), and it is conventional in the art for relative movement to enable data flow, such as conventional readers/cards employ.

Re claim 47-48, Wood teaches sputtering, as discussed above, as a means to easily form a thin layer. Though silent to plating, the Examiner notes plating is also a well known means to form a layer, and hence an obvious expedient to one of ordinary skill in the art to form a magnetic thin layer.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/ Nishiyama et al. with those of Wood.

One would have been motivated to do this to provide coatings, enable data flow, employ conventional processing techniques, etc. to provide expected results of a durable, easy to use, reliable card.

Re claim 10, though silent to the disposing in a manner compliant with ANSI/ISO/IEC standards, this has been addressed above re the rejection of claim 1.

Liu/Wood/ Nishiyama et al. are silent to the explicitly reciting the newly added limitations of the protective housing.

Levy teaches such limitations (FIG. 1) via a case that is able to store cards and that opens and closes thereby providing the claimed access.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Nishiyama et al. with those of Levy, for additional protection.

Re claims 1 and 10, and the newly added limitations regarding the standards the Examiner notes that these limitations have been addressed in the action above, wherein the arcuate/tracks being read by a reader/head, are interpreted as being read in a manner/formed in a manner, compliant with the standards since the tracks have an areal density and magnetic domains since it's a magnetic material and as such is formed/arranged in a way compliant with hard disk drive standards since hard disk drive standards have such elements/traits, and numerical compliance of the areal density is discussed above as well.

24. Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/Nishiyama et al./Levy, as discussed above, in view of Hirasawa (US 6,250552).

The teachings of Liu/Wood/ Nishiyama et al./Levy have been discussed above.

Liu/Wood/ Nishiyama et al./Levy are silent to the coating on both surfaces.

Hirasawa teaches magnetic cards can have magnetic storage on both sides (col 1, lines 30+). Accordingly, it would have been obvious to have the coating on both surfaces when both surfaces have a recording medium.

At the time the invention was made it would have been obvious to combine the teachings of Liu/Wood/ Nishiyama et al./Levy with those of Hirasawa.

One would have been motivated to do this to have a card that does not require such precise orientation (can be inserted either way into a reader since a magnetic storage is on both

sides) or one that can have increased data storage, as some cards with dual storage can be linked to separate accounts.

Though Hirasawa teaches stripes, it is believed to be applicable to other track orientations, including rings/arcuate surfaces as the same principles are believed to apply.

25. Claim 26 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Nishiyama et al./Levy, as discussed above, in view of Bajorek (US 6,482,330).

The teachings of Liu/Wood/ Nishiyama et al./Levy have been discussed above.

Liu/Wood/ Nishiyama et al./Levy are silent to a bonded lubricant layer formed on the outer surface having a thickness less than the protective coating.

Film layers are known in the art for increasing density and providing relief from size (excess). Bajorek teaches a lubricant provided to the protective overcoat (col 4, lines 52+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Nishiyama et al./Levy with those of Bajorek.

One would have been motivated to do this for data density, relief, and ease of use/durability.

Though silent to the thickness, the Examiner notes it would have been obvious to be thinner than the protective layer as the lubricant is employed for reduced friction surface and as being able to be applied by wiping onto the protective layer it would obviously be thinner than a multipart protective layer with magnetic properties. The selection of an optimum value/range when general teaches are taught by the prior art, is within the ordinary skill in the art. Such a layer can be interpreted as a protective component.

Re claim 49, Liu/Wood/ Nishiyama et al./Levy are silent to oxide layers.

Bajorek teaches such limitations (col 1, lines 15+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Nishiyama et al./Levy with those of Bajorek for data storing ease.

26. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Nishiyama et al./Levy, as discussed above, in view of Mizoguchi et al. (US 5,689,105).

The teachings of Liu/Wood/ Nishiyama et al./Levy have been discussed above.

Liu/Wood/ Nishiyama et al./Levy are silent to the station moving relative to the substrate/card.

Mizoguchi et al. teaches such limitations (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Nishiyama et al./Levy with those of Mizoguchi et al.

One would have been motivated to do this to have an alternative means to read the card, and to accurately process with the card (with conformity).

27. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Nishiyama et al./Levy, as discussed above, in view of Meeks (US 6,268,919).

The teachings of Liu/Wood/ Nishiyama et al./Levy have been discussed above.

Liu/Wood/ Nishiyama et al./Levy are silent to the plating.

Meeks teaches such limitations (col 1, lines 43-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Nishiyama et al./Levy with those of Meeks

since plating is well known and conventional for disks/drives to lead to desired properties for magnetic surfaces.

28. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Nishiyama et al./Levy, as discussed above, in view of Foley (US 4,518,627).

The teachings of Liu/Wood/ Nishiyama et al./Levy have been discussed above.

Liu/Wood/ Nishiyama et al./Levy are silent to the web coating.

Foley teaches such limitations (col 3, lines 15-35 and abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Nishiyama et al./Levy with those of Foley.

One would have been motivated to do this to produce a durable magnetic medium, as is commonly done in the art.

29. Claims 1, 4-10, 16-17, 19, 21-25, 27-28, 30, 38, and 47-48 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 2001/0052543) in view of Wood (US 5,041,922) and Porter (US 4202445)

The teachings of Liu/Wood are have been discussed above, including the limitations regarding coercivity. Re the newly added limitations of claim 1, these have been address above, in the first rejection of claim 1 in the office action above, wherein the magnetic material of Liu is interpreted to include magnetic domains and an areal density arranged in compliance with the standards, since hard drives are arranged in such a way as well (tracks with areal densities and domains).

Liu/Wood are silent to the newly added limitations of the protective housing.

Porter teaches such limitations (abstract) via a card holder that is able to hold credit/smart card sized cards (FIG. 1-2).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Porter, for additional protection.

30. Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter, as discussed above, in view of Hirasawa (US 6,250552).

The teachings of Liu/Wood/ Porter have been discussed above.

Liu/Wood/ Porter are silent to the coating on both surfaces.

Hirasawa teaches magnetic cards can have magnetic storage on both sides (col 1, lines 30+). Accordingly, it would have been obvious to have the coating on both surfaces when both surfaces have a recording medium.

At the time the invention was made it would have been obvious to combine the teachings of Liu/Wood// Porter with those of Hirasawa.

One would have been motivated to do this to have a card that does not require such precise orientation (can be inserted either way into a reader since a magnetic storage is on both sides) or one that can have increased data storage, as some cards with dual storage can be linked to separate accounts.

Though Hirasawa teaches stripes, it is believed to be applicable to other track orientations, including rings/arcuate surfaces as the same principles are believed to apply.

31. Claim 26 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter, as discussed above, in view of Bajorek (US 6,482,330).

The teachings of Liu/Wood/ Porter have been discussed above.

Liu/Wood/ Porter are silent to a bonded lubricant layer formed on the outer surface having a thickness less than the protective coating.

Film layers are known in the art for increasing density and providing relief from size (excess). Bajorek teaches a lubricant provided to the protective overcoat (col 4, lines 52+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter with those of Bajorek.

One would have been motivated to do this for data density, relief, and ease of use/durability.

Though silent to the thickness, the Examiner notes it would have been obvious to be thinner than the protective layer as the lubricant is employed for reduced friction surface and as being able to be applied by wiping onto the protective layer it would obviously be thinner than a multipart protective layer with magnetic properties. The selection of an optimum value/range when general teaches are taught by the prior art, is within the ordinary skill in the art. Such a layer can be interpreted as a protective component.

Re claim 49, Liu/Wood/ Porter are silent to oxide layers.

Bajorek teaches such limitations (col 1, lines 15+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter with those of Bajorek for data storing ease.

32 Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter, as discussed above, in Porter of Mizoguchi et al. (US 5,689,105).

The teachings of Liu/Wood/ Porter have been discussed above.

Liu/Wood/ Porter are silent to the station moving relative to the substrate/card.

Mizoguchi et al. teaches such limitations (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter with those of Mizoguchi et al.

One would have been motivated to do this to have an alternative means to read the card, and to accurately process with the card (with conformity).

33 Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter, as discussed above, in view of Nishiyama et al. (US 5,721,942)

The teachings of Liu/Wood/ Porter have been discussed above.

Liu/Wood/ Porter are silent to the claimed density range.

Nishiyama et al. teaches such a range (claim 4)

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter with those of Nishiyama et al. in order for increased storage capacity.

34 Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter, as discussed above, in view of Meeks (US 6,268,919).

The teachings of Liu/Wood/ Porter have been discussed above.

Liu/Wood/ Porter are silent to the plating.

Meeks teaches such limitations (col 1, lines 43-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter with those of Meeks since plating is well known and conventional for disks/drives to lead to desired properties for magnetic surfaces.

35. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter, as discussed above, in view of Foley (US 4,518,627).

The teachings of Liu/Wood/ Porter have been discussed above.

Liu/Wood/ Porter are silent to the web coating.

Foley teaches such limitations (col 3, lines 15-35 and abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter with those of Foley.

One would have been motivated to do this to produce a durable magnetic medium, as is commonly done in the art.

36. Alternatively, claims 1, 4-10, 16-17, 19, 21-25, 27-28, 30, 38, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 2001/0052543) in view of Wood (US 5,041,922) and Porter (US 4202445)

The teachings of Liu/Wood have been discussed above, including the limitations regarding coercivity. Re the newly added limitations of claim 1, these have been address above, in the first rejection of claim 1 in the office action above, wherein the magnetic material of Liu is interpreted to include magnetic domains and an areal density arranged in compliance with the standards, since hard drives are arranged in such a way as well (tracks with areal densities and domains).

Liu/Wood are silent to the newly added limitations of the protective housing.

Porter teaches such limitations (abstract) via a card holder that is able to hold credit/smart card sized cards (FIG. 1-2).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood with those of Porter, for additional protection.

Liu/Wood/Porter teach compliance with arrangement, but are silent to an actual numerical compliance of areal density.

Re claims 1, 10,and 38, Nishiyama et al. teaches such limitations as discussed above.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/Porter with those of Nishiyama et al. for increased storage.

37. Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter/ Nishiyama et al., as discussed above, in view of Hirasawa (US 6,250552).

The teachings of Liu/Wood/ Porter/ Nishiyama et al. have been discussed above.

Liu/Wood/ Porter/ Nishiyama et al. are silent to the coating on both surfaces.

Hirasawa teaches magnetic cards can have magnetic storage on both sides (col 1, lines 30+). Accordingly, it would have been obvious to have the coating on both surfaces when both surfaces have a recording medium.

At the time the invention was made it would have been obvious to combine the teachings of Liu/Wood/ Porter/ Nishiyama et al. with those of Hirasawa.

One would have been motivated to do this to have a card that does not require such precise orientation (can be inserted either way into a reader since a magnetic storage is on both sides) or one that can have increased data storage, as some cards with dual storage can be linked to separate accounts.

Though Hirasawa teaches stripes, it is believed to be applicable to other track orientations, including rings/arcuate surfaces as the same principles are believed to apply.

38. Claim 26 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter/ Nishiyama et al., as discussed above, in view of Bajorek (US 6,482,330).

The teachings of Liu/Wood/ Porter/ Nishiyama et al. have been discussed above.

Liu/Wood/ Porter/ Nishiyama et al. are silent to a bonded lubricant layer formed on the outer surface having a thickness less than the protective coating.

Film layers are known in the art for increasing density and providing relief from size (excess). Bajorek teaches a lubricant provided to the protective overcoat (col 4, lines 52+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter/ Nishiyama et al. with those of Bajorek.

One would have been motivated to do this for data density, relief, and ease of use/durability.

Though silent to the thickness, the Examiner notes it would have been obvious to be thinner than the protective layer as the lubricant is employed for reduced friction surface and as being able to be applied by wiping onto the protective layer it would obviously be thinner than a multipart protective layer with magnetic properties. The selection of an optimum value/range when general teaches are taught by the prior art, is within the ordinary skill in the art. Such a layer can be interpreted as a protective component.

Re claim 49, Liu/Wood/ Porter/ Nishiyama et al. are silent to oxide layers.

Bajorek teaches such limitations (col 1, lines 15+).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter/ Nishiyama et al. with those of Bajorek for data storing ease.

39 Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter/ Nishiyama et al., as discussed above, in Porter of Mizoguchi et al. (US 5,689,105).

The teachings of Liu/Wood/ Porter/ Nishiyama et al. have been discussed above.

Liu/Wood/ Porter/ Nishiyama et al. are silent to the station moving relative to the substrate/card.

Mizoguchi et al. teaches such limitations (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter/ Nishiyama et al. with those of Mizoguchi et al.

One would have been motivated to do this to have an alternative means to read the card, and to accurately process with the card (with conformity).

40. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter/ Nishiyama et al., as discussed above, in view of Meeks (US 6,268,919).

The teachings of Liu/Wood/ Porter/ Nishiyama et al. have been discussed above.

Liu/Wood/ Porter/ Nishiyama et al. are silent to the plating.

Meeks teaches such limitations (col 1, lines 43-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter/ Nishiyama et al. with those of Meeks

since plating is well known and conventional for disks/drives to lead to desired properties for magnetic surfaces.

41. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/Wood/ Porter/ Nishiyama et al., as discussed above, in view of Foley (US 4,518,627).

The teachings of Liu/Wood/ Porter/ Nishiyama et al. have been discussed above.

Liu/Wood/ Porter/ Nishiyama et al. are silent to the web coating.

Foley teaches such limitations (col 3, lines 15-35 and abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Liu/Wood/ Porter/ Nishiyama et al. with those of Foley.

One would have been motivated to do this to produce a durable magnetic medium, as is commonly done in the art.

Response to Arguments

16. Applicant's arguments filed have been fully considered but they are not persuasive. The Examiner has removed the rejection relating to "bendable" as it pertains to claims 1 and 10 since it was removed by the Applicants most recent amendment. Therefore it is unclear why p. 13 (last paragraph) of the Applicants' amendment references the "bendable substrate".

The Examiner has addressed the newly added claim limitations in the rejection above. The Examiner notes that as the prior art of Liu teaches a magnetic storage material, it is believed to include magnetic domains and a magnetic density (inherently). The tracks are arranged in

arcs/round tracks. Since hard disk drives are formed with domains, areal densities, and similar shaped data tracks, the Examiner notes that the prior art therefore is interpreted as including the arrangement being in compliance with hard disk drive standards, as they are both arranged the same, and because a specific type of standard (year, number, etc.) drawn to a particular structural/numerical limitation that would preclude the interpretation of the Examiner above, has not been given. The Examiner notes that the prior art is "arranged" compliant with the standards, as "arranged" is sufficiently broad. If the Examiner wishes to distinguish from the prior art, perhaps structurally distinguishing, instead of relying on "assembling in a manner" might be a way to overcome the prior art. While the Examiner has interpreted that the prior art teaches magnetic domains with areal density on the tracks of the storage medium, this is interpreted as compliant with the standards because the hard disk drives themselves have an areal density with domains therein on the data storage. The claim does not recite a specific value of areal density (claim 1 or 10) but merely that the domains are in the areal density that is compliant. Therefore, an areal density with domains in the magnetic storage (such as the prior art) therefore is seen as compliant. Nonetheless, the Examiner has alternatively rejected the claims on the interpretation that the numerical value of the areal density is within standards, nonetheless noting that no specific standards are recited in the claim, and as such is sufficiently broad.

Additional Remarks

The Examiner notes that if the Applicant wishes to recite a data storage card with a magnetic, hard disk storage medium thereon, such structure could be explicitly incorporated into

the claims to preclude references that were not hard disk drive cards (direct recitation), as opposed to merely reciting compliance with standards.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL WALSH whose telephone number is (571)272-2409. The examiner can normally be reached on M-F 9am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Paik can be reached on 571-272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL WALSH/
Primary Examiner, Art Unit 2887